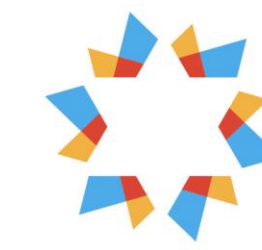


Inadvertent intramyometrial injection of ergometrine for post-partum hemorrhage

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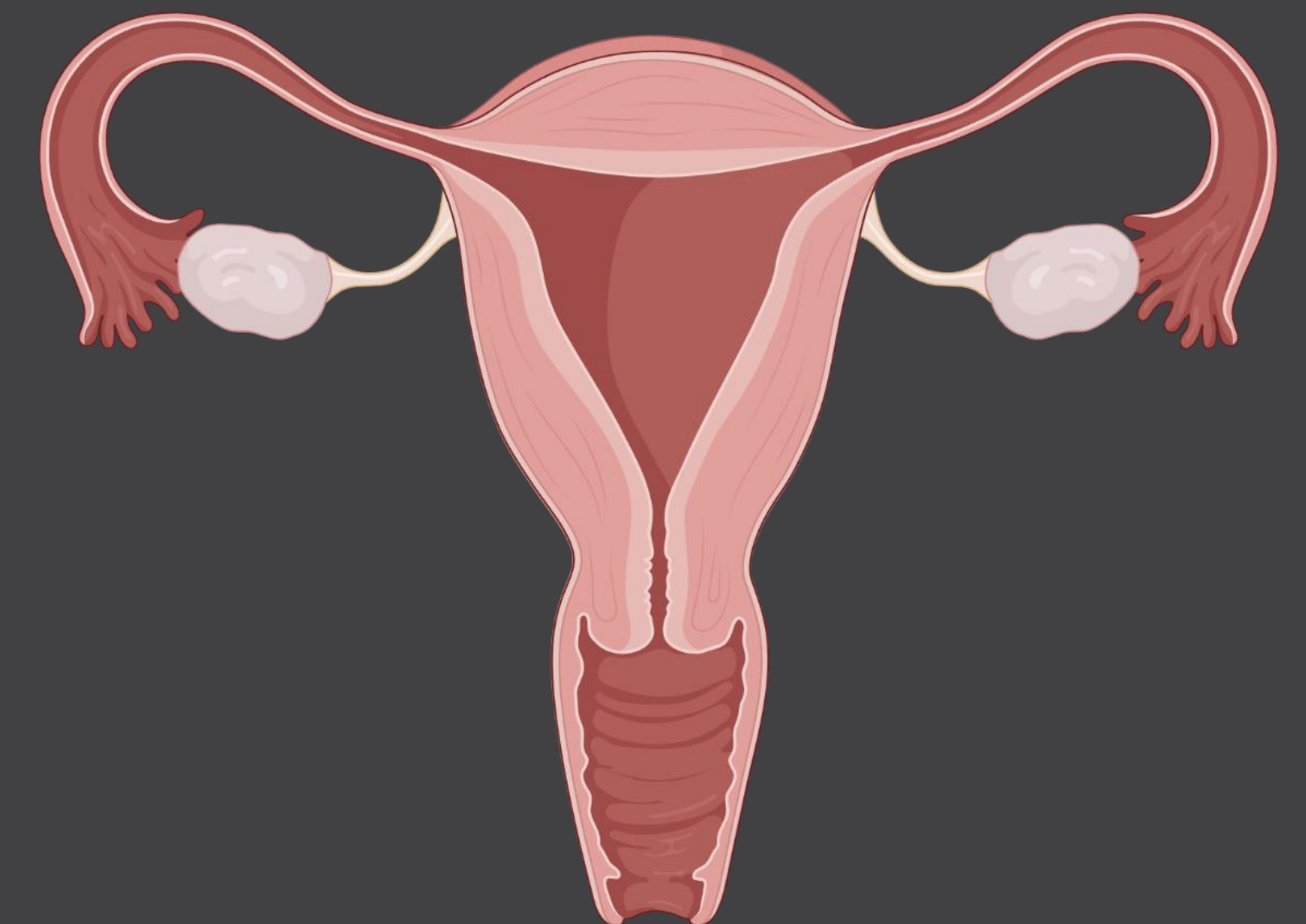


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Background

- Ergometrine used as second-line uterotonic for post-partum hemorrhage (PPH)¹
 - Increases uterine muscle tone and causes continuous tetanic uterine contractions
- Typically administered intramuscularly (IM)
 - Risk of hemodynamic instability including hypertension and myocardial infarction²



1. American College of Obstetricians and Gynecologists. ACOG Practice Bulletin: Clinical Management Guidelines for Obstetrician-Gynecologists Number 76, October 2006: postpartum hemorrhage. Obstet Gynecol. 2006;108(4):1039-1047. doi:10.1097/00006250-200610000-00046
2. Jain S, Baghel K. Myocardial ischaemia secondary to intramyometrial injection of methylergonovine maleate. Indian J Anaesth. 2016;60(4):290-292. doi:10.4103/0019-5049.179471

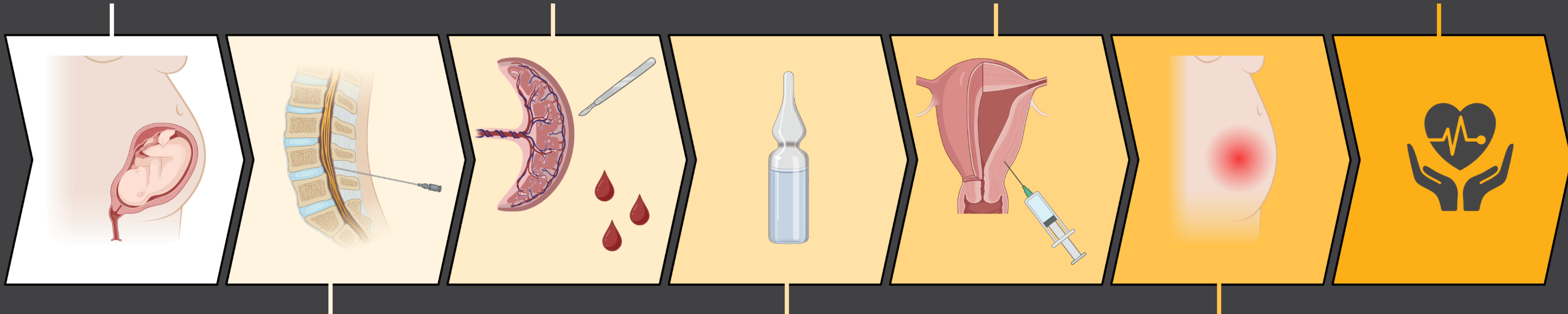
Case

- 35-year-old
- G2P1
- 38-weeks gestation
- Repeat elective C/S

- Inadvertent incision through anterior placenta
- Brisk bleed causing significant blood loss (>2000 mL) and hemodynamic instability (sBP<90 mmHg and brief junctional rhythm)

- Ergometrine 0.25 mg administered intramyometrial (IMM) instead of Hemabate (carboprost) IMM

- Cardiology consulted
- Intra-operative junctional rhythm & post-operative troponin elevation
- Demand ischemia 2ndary to hemodynamic instability prior to ergometrine



- L3/4 spinal with 13.5 mg hyperbaric bupivacaine 0.75%, 10 mcg fentanyl, 100 mcg morphine

- Carbetocin 100 mcg IV administered

- Resulted in intense abdominal pain for 12 hours post-operatively despite aggressive analgesia

Teaching Points

- Ergometrine induces sustained, tetanic contractions on the uterus³
- Myometrium may potentiate sustained, strong contractions with IMM ergometrine causing severe patient discomfort with limited response to PO and IV analgesics
- Additional association with myocardial ischemia and uncontrolled hypertension
 - Limited to case reports
 - ECG/24-hour telemetry, troponin, and cardiology consultation may be considered
- Ergometrine should not be administered IMM and adverse effects should be identified and managed promptly

3. Spencer SPE, Lowe SA. Ergometrine for postpartum hemorrhage and associated myocardial ischemia: Two case reports and a review of the literature. Clin Case Rep. 2019;7(12):2433-2442. doi:10.1002/ccr3.2516